

### **ABSTRACT OF THE DISCLOSURE**

An improved electronics assembly for integration with a tire structure includes an acoustic wave device such as a SAW sensor connected as a feedback element in an active amplifier and further coupled to an antenna element, thus forming an active transmitter configuration. Such a circuit configuration

5 provides for the ability to actively transmit a combination of information from integrated tire electronics to a remote receiver location. The combination of information corresponds to the physical parameters sensed by the acoustic wave device as well as digital data superimposed on the RF signal emitted by the acoustic wave device by selectively switching the amplifier on and off. Optional

10 integrated power sources configure the electronics assembly for operation as an actively transmitting device.